

Ground Zero clean-up completed

By Vince Elias
New York District

The twin towers of the World Trade Center in New York City stood more than 1,300 feet tall before terrorists crashed two commandeered jetliners into them on Sept. 11, taking the lives of thousands of innocent people. The disaster reduced the towers to seven stories of imploded debris. Fifteen million square feet of office and retail space were lost, and another 17 million square feet were lost in nearby damaged buildings.

New York District was extensively involved in the debris removal mission at Ground Zero and, since last October, in a collaborative effort at the Staten Island Landfill.

It has been described as "the biggest crime scene in history." This monumental feat of removing the debris from Ground Zero ended when the final load was removed on May 31. Thanks to cost control and close management, the operation was completed \$55 million under budget and months earlier than expected.

The mountain of debris in lower Manhattan began to shrink as millions of tons of debris and steel were transported about 20 miles from Ground Zero to the landfill and scrap yards. The Federal Management Emergency Management Agency (FEMA) sought out the Corps because of our experience in debris management learned from years of disaster recovery operations.

Twenty-four hours a day, work went on at the 175-acre landfill. New York City shut down the Staten Island Landfill in 2000, but reopened it for the sole purpose to deal with the debris of the Sept. 11 attacks.

Hundreds of Federal Bureau of Investigation (FBI) and New York City law enforcement officers sifted through the mountain of debris and examined each item for remains and evidence. The landfill is expected to close again once the operation is completed.

One of the most challenging jobs, both in size and complexity, was removing the millions of tons of building debris from the World Trade Center complex. This is one area where the expertise of the Corps was tapped immediately.

USACE mobilized the Advanced Contract Initiative (ACI) contractor at Ground Zero for technical assis-



This photo taken on May 7 shows the amazing progress made in cleaning up the debris from the collapsed World Trade Center towers. (Photo by Randall Hintz, New York District)

tance before the mission assignment from FEMA. This allowed the ACI contractor, in conjunction with the Corps, to assess the debris removal, delivery, screening, and disposal process, and to become prepared for full mobilization.

The debris was mainly structural debris from the World Trade Center, not the trees and residential debris from hurricanes and other storms that the Corps normally faces. There was an enormous amount of debris in a relatively small geographic location (310 stories of buildings compressed into a 12-square-block area).

A joint safety committee was established and was instrumental in the success of the safety program. The landfill operation processed more than 1,345,000 tons of debris. More than 150 people have been identified through material found during landfill screening operations.

Freon, fuel, and other substances were in the debris. The concrete in the floors and exteriors caused the huge plume of gray dust that choked the city during the tow-

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An aerial view of the Staten Island Landfill shows wrecked firetrucks and cars stacked three and four deep. (Photo courtesy of Cryptome)



Gleaners in respirators and protective suits searched through every piece of rubble from Ground Zero. (Photo by Henry Heusinkveld, Headquarters)



Barges were used to transport debris from Ground Zero to the Staten Island Landfill. (Photo courtesy of New York District)



David Leach ensures contract compliance at the landfill. (Photo by Tom Harnedy, New York District)

Ground Zero

Continued from page one

ers' collapse. The devastation of the World Trade Center was so powerful that almost no furniture from within the towers survived.

Transporting such a large amount of debris through one of the busiest cities in the world was a unique task and, ultimately, an impossible one. One problem was that the debris was part of a crime scene and contained both evidence and human remains.

Initially, trucks moved the debris

through the city to the landfill site. The Corps suggested improvements, including one-stop stations that could wash down the trucks, tarp the loads, and document load tickets in one efficient operation.

But the truck route to the landfill was more than 20 miles, through crowded downtown streets. Barges were quickly suggested for debris transportation due to the proximity of the Hudson River to the World Trade Center site. The Corps issued permits for emergency dredging

to allow the barges to move alongside docks near the disaster site.

Any challenges encountered are what made the project a success, said Jim Parks, Chief of Special Projects and coordinator of the project delivery team. He is now with North Atlantic Division.

"It was challenging working with a variety of people from many different locales, working with many different organizations that have different levels of standards," said Parks. "When we came together as a team there was a camaraderie that will go on for years."

According to Parks, visiting dignitaries to the site were impressed with the accomplishments by the Corps while observing the landfill operations. "What we accomplished has exceeded our expectations."

Parks, along with Tom Harnedy, Chief of the Construction Management Section, and David Leach, Chief of Construction's Metro Area Office, has been instrumental in the mission's success of the 'round-the-clock operation.

New York District was operating under disaster conditions, yet handled the mission. "We didn't wait; we acted immediately," said Parks.

At the landfill the Corps continually monitored the air for asbestos and methane gas. "Dust and debris was washed off of the trucks and we ensured there was a minimal amount of landfill ground penetration," said Parks.

New York District lent specific support to the New York Police Department, the Federal Bureau of Investigation, and the New York City Department of Sanitation. The district's support and assis-

tance staffs included personnel from safety, construction, engineering, contracting, operations, logistics, and from two other Corps districts — Baltimore and New England.

Leach continuously represented the Corps and federal government's interest, ensuring contract compliance at the landfill. Leach was known as the mayor of the operation because he brought everyone on the "hill" together for a meeting each workday. He held daily briefings for his staff, the Environmental Protection Agency, FBI, and agencies of New York City and New York State.

Leach managed the debris flow while many law enforcement agencies analyzed every single speck of it two or three times. The work was an assembly-line operation with grappling derricks hefting twisted steel and huge chunks of concrete from barges onto trucks. The trucks carted the debris from the barges to sorting centers where it was sifted by size.

The Corps cleared a work backlog in just four weeks and brought cooperation among agencies at three levels of government.

The debris management mission was made considerably more difficult because the landfill was also a crime scene. Hundreds of identification cards, credit cards, drivers licenses and other documents, shoes, books, wallets, pieces of jewelry and clothing were catalogued and shelved.

The Corps operation at the Staten Island Landfill will continue for a few weeks after the closing ceremony at Ground Zero. As of press time, a completion date had not been announced.



Piles of mangled cars bear mute witness to the destruction at Ground Zero. (Photo by Henry Heusinkveld, Headquarters)

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Insights

Father taught values by example

By Col. Lowell Moore
Chaplain, U. S. Army Corps of Engineers

When I was a young, snot-nosed kid in high school, I was kidding with my father and said, "Dad, I'm poor, dumb, and ugly, and I inherited it all from you." He joked back and said, "That's right, and you're lucky you got that much!"

(At least I *think* he was joking!)

Since Father's Day is approaching, I've been thinking about what I *did* inherit from my father. I've become aware that the greatest part of my inheritance can't be measured in intelligence, physical appearance, or money. My *real* inheritance is the ethics and values my father instilled in me while I was growing up.

In thinking about this article, I tried to recall some clever or wise saying my dad used to teach me values, and I couldn't think of even one. You see, he taught me through his *example* and not his speeches.

Aristotle said, "We are what we repeatedly do. Excellence, therefore, is not an act, but a habit." Dad must have realized this was true of values, too, because he taught me values by living them until they became habit.

When I was in high school, Dad was Director of Admissions at Olivet Nazarene University, and his job became very busy at the beginning of each semester. During this time, he worked long hours and several times he would work all night. On these occasions, he would come home in time to have breakfast with the family and see us off to school. Then he might catch a quick nap before going back to work.

As a kid I wondered why he pushed himself so hard. It wasn't until much later in life that I realized he was teaching me values.

For example, when I was stationed at Fort Leonard

Wood, Mo., I was the chaplain for a basic training battalion where trainees learned to become combat engineers. Engineer Week was the last week of their training, and during this week they lived in the field while they used their newly acquired skills to perform various tasks.

Engineer Week concluded with a long march back to the company area that would begin about midnight. The actual length of this march was unknown, but it was often debated, with most trainees swearing it was well over 20 miles long.

Although I had no requirement to do so, I went on this march with every training cycle, and I believe the most valuable lesson we learned on these marches was how to sleepwalk. However, our sleep was often interrupted by an enemy attack, and the weapon of choice was tear gas. Since the drill sergeants staged the attack, it was *truly* an enemy attack.

On one march, I forgot my gas mask but, since gas was not used on every march, I decided to say a prayer and go on the march without my gas mask.

As fate would have it, about half way through the march we came under attack. The trainees did just what they were trained to do. They hit the ground, donned their gas masks, returned fire, and moved out to engage the enemy.

I bravely stood there, undaunted by the sound of gunfire all around me (I knew they were blanks), but I was becoming increasingly unnerved by the white cloud slowly drifting my way. That was tear gas, and it was *real*!

There I was, about two in the morning, sweaty, tired, sleepy, blisters on my feet, a cloud of tear gas closing in on me, and I *didn't* have to be there. I asked myself, "Why am I here?" The only answer I could come up with was, "Because this is what Dad would have done."

That answer was good enough for me. So, I began putting one weary foot in front of the other as I coughed my way through the tear gas that now had me completely engulfed.

This is only one example of how my father used this sneaky tactic to teach me, and I couldn't resist because I didn't even know I was being taught. Through his example he taught me respect, integrity, faith in God, honor, loyalty, and the many other values that I hold dear today.

I've heard it said, "You may not see yourself as an example, but you are to someone." This is true, and I'm fortunate that my father used the power of his example in a positive way. Unfortunately, this method could be used in a negative way as well.

To all the Corps fathers I say, "Happy Father's Day." And I encourage you to develop habits as if you'll be giving them to your children as an important part of their inheritance. *You are!*

Thanks, Dad, for my rich inheritance. However, I could have used a little more help in the looks department!

(The views in this article are those of the author and do not reflect the official policy or position of the U.S. Army Corps of Engineers, the Department of the Army, the Department of Defense, or the U.S. government.)



Fathers Day

Parenthood is similar to gardening

By Sunday Pearson
Sacramento District

Unfortunately, children do not come with an owner's manual to guide parents through the challenges of childrearing. For the most part, it's on-the-job-training, baby! Thankfully, my husband and I were blissfully ignorant to all the potential screw-ups and had children anyway.

Raising kids in a less-than-perfect home is achievable if you use the sure-fire method my husband uses when he plants trees. So, in honor of Father's Day, I title this column "Steps to Successfully Planting Redwood Trees or A Father's Role in Raising Great Kids."

My husband never left our children's character to chance. It is a proven fact that more is "caught" than "taught." Like most kids, ours tended to put a spotlight on the quality of our lives. "Do as I say" proved to not be the best approach! My husband's life invited the approach, "Do as I do." By example, he taught them boundaries and responsibilities while passing on important things, such as a good name and honorable character.

A good foundation is important when growing trees, too. When he planted the redwood trees on our property in Placerville, Calif., several years ago, he made sure to dig a deep hole for each one. This secured the tree to the earth and provided the receptacle within which the seedling was nourished. It's a pretty clear indication that he provided just the right foundation since they are now more than 12 feet tall and flourishing.

Both trees and children require nutrients in order to survive. In the case of children, quality time and mountains of patience are important though intangible provisions. My husband made time for his girls. He read to

them each night; no matter how tired he was. He patiently untangled yards of fishing line from hair, bathing suits, and flesh. He taught them to ride a bicycle even though his legs almost gave out as he ran up and down the street holding onto the back of the bike. He taught them to drive an old beat-up Volvo (with a stick-shift, no less!) because their mother was about to have a nervous breakdown due to narrowly missed mailboxes and startled pedestrians.

Was he perfect? No, he didn't always seize golden opportunities, but his love covered a multitude of mistakes. Career notwithstanding, he made himself available for his daughters. And they flourished!

In nurturing his redwood seedlings, he provided enriched soil and plenty of water. He staked the saplings and surrounded each one with a wire fence. Staking the tiny redwood tree added stability and ensured that the roots would grow deep into the earth. The wire fence kept the notorious nibbling deer away, thus insuring the seedling would not succumb to a premature death!

He applied this same analogy when raising our girls. Whenever he felt our daughters were seriously threatened, he intervened. The world is a cruel place and a child's self-esteem is vulnerable and must be protected. He has scared away the boogey man more times than I can count. And the monsters under the bed? They never had a chance! Our girls knew that he was their protector. That's what daddies do.

The last, and most difficult stage to successful tree planting is removing the stake and the wire fence at just the right time. He did that last year and our trees look great! Removing the protective cage allowed the branches to unfurl completely, the way nature intended. Retaining the enclosure would have left them stunted and shriveled. He also removed the stake, allowing the trees further opportunity to strengthen their root systems as they bent and struggled against the wind and inclement weather.

It is even more difficult to know when to let go of our children! Truly, none of us are ready for the competition that comes with our children's broadened boundaries. Not that we completely let go, but allowing them to stand on their own two feet strengthens their character as they put into practice all that they have learned. Our children must learn to bend with the winds of everyday life if they are to survive into adulthood.

Corps Dads, hear me on this! **Never** take your role in raising children lightly! Your positive participation is pivotal to their future! Also, be assured that you can in fact raise great kids in a less than perfect home. Just ask my husband...

Of course, it helps a lot if you happen to be a master gardener!

Happy Father's Day!

(The views in this article are those of the writer and do not reflect the official policy or position of the U.S. Army Corps of Engineers, the Department of the Army, the Department of Defense, or the U.S. government.)





The Parma stream crossing was completely washed away by Hurricane Mitch. (Photo courtesy of Mobile District)



Gabions (wire-mesh boxes) were used to complete the project in Nombre de Jesus. (Photo courtesy of Mobile District)

Honduras still rebuilding after Mitch

By Celeste Hadley
Mobile District

Hurricane Mitch hit Honduras in late October 1998, causing five billion dollars worth of damage to the economy, especially in the agriculture sector, which lost \$900 million dollars in revenue.

Mitch devastated the infrastructure of roads, bridges, waterways, ports, water supply and waste collection systems, and killed 11,000 people. It left Honduras flooded, with bridges washed away, irrigation systems destroyed, and eroded riverbanks in communities and agriculture areas. Stream channels were filled with sediment, causing additional flooding every rainy season.

As part of the River Basin Results Package (RP), the U.S. Agency for International Development (USAID) signed a Participating Agency Support Agreement on April 26, 2000 with Mobile District. The RP was designed to help municipalities in the Lower Aguán and Choluteca River Basins reduce risk by restoring stream channel capacities, protecting riverbanks, and rehabilitating agriculture lands.

The RP activities initiated a process of building sustainable community-based programs for maintenance of flood protection infrastructure.

Infrastructure work

Through this agreement, USACE was to implement priority infrastructure works that provide flood protection and restoration to agricultural activities in the Lower Aguán and Choluteca Valleys to support the Government of Honduras Ministry of Agriculture, Honduran Association of Municipalities, and Regional Associations of Municipalities/Development Commissions.

The implementation process also involved coordination with the local communities, the mayors, other U.S. government agencies, as well as other international and national relief agencies. These efforts were designed to include technology sharing in the areas of flood control and management of water resources.

USACE wanted projects that municipalities and local communities could maintain and which restored agriculture productivity. Mayors from local communities, the U.S. Department of Agriculture, and others identified more than 60 potential projects. The selection process reviewed the 60 projects and, based on input from USAID, USACE, Honduran government officials, and local community members, this number was narrowed to 15 projects.

Projects

There are 11 infrastructure works in the Aguán Valley, which reduced flood impacts on 2,800 families and 7,500



School-age children helped on the Nombre de Jesus project. (Photo courtesy of Mobile District)

hectares of agricultural land worth \$24.3 million. Four infrastructure works are in the Choluteca Valley, which reduced flood impacts for 9,300 families and 21,000 hectares of agricultural land worth \$138.5 million.

The projects represent a diverse selection including levees, bank erosion protection, channelization, and rehabilitation of access to productive agriculture areas. Besides flood relief benefits, these projects brought much-needed employment to the local communities. Construction crews were hired at the sites, giving the community economic relief with an influx of revenue. These abatement projects made a dramatic impact on the individual lives of the people living in that area.

After each project was completed, Mobile District personnel wrote operation and maintenance manuals for local communities to maintain their new projects. Classes were held in the communities, which included classroom time and a walk-through of the new project. The local people were shown what problems to look for, and who to call if they needed help in the repair work.

Making a real difference

In Parma, Mitch completely washed away a stream crossing. This crossing was in the middle of a community,

isolating part of the community from the outside world, making it difficult to get produce to market, or to receive emergency services.

Before the project was completed, children had to cross the stream on a log to get to school. During the rainy season, school attendance fell to 60 percent. When the stream-crossing project was completed, attendance went up to 90 percent. This project was important to community members because they worked on the project themselves.

Community involvement

Most projects required the involvement of the entire community. The irrigation structure in Nombre de Jesus was one such project. The Mitch floods washed away the irrigation structure, but the area was so remote that equipment could not be brought in to move the rocks and rebuild the structure.

The community closed the schools for a few days, so high school age kids could form a "stone brigade" to move the football-sized rocks to fill the gabions (wire baskets).

The Honduras flood control projects were complete by the end of 2001.

(Celeste Hadley is a contractor for Mobile District.)

Field Force Engineering gets workout

Exercise in Germany tests systems and people

By Brian Temple
Europe District

People from four North Atlantic Division districts traveled to Wiesbaden, Germany, and trained for 11 days to support the Army's war-fighting mission. Almost a dozen employees from the New York, Baltimore, New England, and Philadelphia districts volunteered alongside Europe District workers in March to help push Field Force Engineering (FFE) doctrine toward reality.

FFE is the movement to marry technology with the USACE talent pool to serve the combat engineer downrange (deployed into a war zone). It helps deployed engineers "reach back" to U.S. Army Corps of Engineers experts in the U.S. for help in planning and designing infrastructure, environmental assistance, real estate acquisition, and contract construction and assistance.

Spending 12- to 14-hour days learning pre-deployment protocol, squeezing themselves into chemical and biological protective masks, and studying advanced tele-engineering systems helped these civilians better understand how they support soldiers in the field, and what soldiers expect from them.

Steep learning curve

Baltimore District's Allen Forman volunteered to become a member of an Infrastructure Assessment Team (IAT). Forman said that IAT's role is "looking over, identifying, and recommending the best place to 'do it,' whatever 'it' may be. For example, for setting up a base camp you look at things like geography, natural resources, access, and suitability of the site for construction."

Although Forman attended training in 2001 and participated in pre-deployment training for Kosovo two years ago, he wanted to expand his experiences and see which technologies the Army uses. He found that participating in the training helped him experience putting together a team in a hurry, and he had a glimpse of how the Army works.

"This year was more 'hands on,' working with the available equipment," said Forman. "It has tremendous potential once you know how to use it. The learning curve was not just steep, it was very steep."

Capt. Jeffrey Hoover, a trainer on tele-engineering systems from the Engineering Research Development Center

(ERDC) in Vicksburg, Miss., said the program is gaining momentum, and that select civilians are getting in on the ground floor. (Tele-engineering systems allow voice, video, and data uplink from field sites via satellite communications directly back to USACE offices.)

Hoover, who has been activated as a reservist and has trained civilians in two exercises with Europe District, said the Corps is on the right track to help the combat engineer.

"We have a lot of very intelligent engineers within the Corps," Hoover said. "Each one represents the expertise of their trade. The team, as a whole, is a dynamic and unique engineering tool that the Corps can deploy to provide a Corps presence in the area of operation."

Jerry Delaney from Philadelphia District said the tele-engineering tool kit is the channel linking the combat engineer to the talents in the rear.

"The equipment that's now available is one of the keys," Delaney said. "We now can perform first-hand reconnaissance with photos of sites sent real-time, and video teleconferencing to discuss results. We can have much swifter results when the deployed people can discuss issues immediately with people who provide resources. This is same-day stuff."

Teaching civilians

Capt. Scot Greig with ERDC played a key part in familiarizing the teams with the technical side of FFE. He trained teams on reconnaissance and surveillance systems, but said that working on this exercise broadened his horizons as well.

"It was interesting teaching primarily civilians," Grieg said. "I thought I would be driving my point home and pressuring them to learn my way of doing [reconnaissance], and I've been doing it for a while. Through their eyes I saw there are different ways to approach the mission."

For example, Grieg said the civilians wanted to obtain diagrams of water systems, where he wanted to pull up man-hole covers and drop down to take a look to make an assessment. He explained that both approaches are valid and that his experience with the infantry would naturally give him a different approach.

So Greig said the exercise was an exchange of ideas. "I came from a different perspective than where they were coming from, and somewhere in the middle is where we met."

Balance

H. Farrell McMillan from New England District was chosen as a team leader for the Base Development Team because of his experience with people. It was his job to help team members find some balance with each other.

McMillan said his team quickly acclimated to each other and were ready to work, and that Greig's guidance helped the team's momentum get going.

"Grieg was good; he was all business," McMillan said. "He instilled in us the seriousness of what we're doing. We used him as a sounding board, and he



Europe District's Shawn Pelowitz (left), International Engineering Center, and John Hasselman, Installation Support Branch, discuss the technicalities of a secure tele-engineering system. (Photo by Lt. Col. Tracy Takamine)



Pat Sampsel (left) and Allen Forman, both of Baltimore District, try on protective masks under the guidance of Staff Sgt. Jay Smith from North Atlantic Division. (Photo by Brian Temple, Europe District)

made good comments when we were starting out."

McMillan, who served as a Naval Seabee for four years during the Vietnam War, said he will advocate more people signing up to train and deploy with the teams. He said it is a great benefit coming to Europe District; it puts one into the middle of the action.

"You need to be in the theater of operations to get a sense of the urgency of what's going on, and you don't get that sitting back in your office in CONUS," McMillan said.

With trained civilians fueling the FFE machine, and with more jumping in line to help, FFE will soon be able to leap

from doctrine to reality.

Only beginning

Lt. Gen. Robert Flowers, Chief of Engineers, said that FFE allows commanders to leverage the entire engineer regiment — uniformed soldiers, civilian contractors, academia, and labs — and focus them to solve a problem any place in the world.

"We're only just beginning to see the real contributions that this Field Force Engineering can bring, as we are better able to apply the Engineer Regiment as a whole to solve problems in the field," Flowers said.

Wells project may help the Everglades aquifer

Michael Fies
and Christopher Brown
Jacksonville District

The feasibility of building and implementing a network of large-capacity aquifer storage and recovery (ASR) wells is being evaluated as part of the Comprehensive Everglades Restoration Plan (CERP).

CERP has 68 components that include removing or modifying existing water-management structures and building new storage, treatment, and conveyance features collectively designed to improve hydrologic conditions in the Everglades. This plan also offers water-resource and flood protection to about six million residents.

An ambitious network of some 330 ASR wells is an integral part of the proposed storage system, and is the subject of pilot testing and a regional feasibility study to determine its ability to reduce water-resource competition during drought periods. If fully implemented, more than 1.6 million gallons per day of water typically lost to the ocean during the wet season in South Florida will be injected into the regionally extensive Florida Aquifer System (FAS), and recovered during the dry season.

Collectively, the pilot well projects and the regional feasibility study will help address scientific and engineering uncertainties associated with the proposed ASR system. Most of the proposed ASR wells will be located in the Lake Okeechobee area, an area with little existing subsurface information where the FAS often lies 1,000 feet underground.

To obtain site-specific geologic and hydrogeologic data for this area, three test wells were recently drilled at proposed ASR facility locations around the lake. These sites are near Lake Okeechobee at the Kissimmee, Caloosahatchee, and St. Lucie rivers. Drilling and testing these wells, reaching depths of 2,000 feet, began in

May 2001 and ended last February. Both mud rotary and reverse circulation drilling were used in this effort. Field activities included logging of the drill cuttings and core, monitoring shallow groundwater quality (observation wells), and monitoring surface water discharge water quality.

Specific information was collected during the drilling program to determine the lithologic (rock formations), hydraulic, and water quality characteristics of the FAS. This information, together with the future exploratory ASR wells, will be used to design site-specific aquifer test and monitoring programs. Hydrogeologic data obtained will evaluate whether the site is suitable for ASR, and to support future groundwater modeling efforts of the FAS, for which current data are limited.

The drilling program uncovered major differences in the hydrogeology of the FAS. For instance, at the Kissimmee River site, karstic (cavernous) features and relatively extensive fractures were encountered. These features were much less developed or absent at the other two drill sites.

The Kissimmee River well presented unique technical problems, and provided valuable information of the upper FAS in this area. Artesian (fountain-like) conditions and large groundwater flows from highly permeable zones were common. These conditions created drilling problems such as excessive discharge water and lost circulation, which local drillers are accustomed to encountering.

However, the artesian flow was about 4,000 gallons per minute, about twice what was expected. Also, the highly fractured and cavernous rock encountered between 1,020 and 1,350 feet created unstable borehole conditions. During downhole geophysical logging and aquifer testing, pieces of rock from this area kept falling into the borehole, creating bridging at around 1,350 feet, where the borehole narrowed. All these factors resulted



About 330 aquifer storage and recovery wells will inject wet season water into the Florida aquifer system for use during the dry season. (Photo courtesy of Jacksonville District)

in fewer logs and tests than planned.

Based on the limited data from the Kissimmee River test well, it appears the possible ASR storage interval will be from the top of the FAS at 562 feet to the base of the highly permeable zone at 1,350 feet.

Future planned activities will supplement the test well data and should provide additional understanding of the site hydrogeology and water quality. This data will also support regional feasibility study tasks to reduce the uncertainty of the ASR program.

College students work real projects

By Christina Swanson
Jacksonville District

Before Stephen Covey's synergistic thinking and Edward Deming's Total Quality Management, there was Value Engineering (VE). Around since the 1940s and playing an integral part of the U.S. Army Corps of Engineers' civil works mission, the Corps is now expanding this important quality building and cost saving process further by tapping into the brain power of college students.

"It's a true win-win situation for everyone," said Scott Burch, Jacksonville District's VE Officer. "The Corps receives fresh ideas, while saving taxpayers' money, and the engineering students get to learn about the Corps and work on real projects with real consequences."

Throughout the nation, engineering departments from 19 universities submitted team applications to be a part of the Value Engineering College Initiative. Of the 19, only five student teams were chosen, based on the diversity, skills, and dynamics of each group. "Just being selected to be a part of these studies speaks highly of the students," Burch said.

This initiative began in 2000 when Adrienne Kelly, then Pittsburgh District's VE Officer, had her own VE brainstorm



Engineering students from the University of Florida review their Value Engineering (VE) recommendations as their professor, Dr. Ralph Ellis (far right), and Jacksonville District VE Officer Scott Burch (second from left) watch. (Photo courtesy of Jacksonville District)

to get engineering students involved. This year, Jacksonville and Savannah districts' VE programs joined Pittsburgh, going to campuses to teach a condensed version of the VE PROSPECT course which, ideally, is taught to all technical Corps employees.

Since any project costing more than \$2 million must be VE studied before construction, and the disciplines needed to study a particular phase of a project vary depending on the type of project, it's possible that any Corps technical employee could be asked to be a part of a VE study.

A VE study can take place during any project phase after a plan has been recommended and a cost estimate approved, but typically occurs after the feasibility phase.

In Jacksonville District, five-member teams of senior and graduate-level college engineering students at Valparaiso University and the University of Florida (UF) are currently participating in the Corps' VE process. In February, Burch and Mike Wolz taught the UF and Valparaiso teams VE concepts, reviewed the project to be studied, and explained how the Corps works.

The two five-student teams, guided by a sponsoring professor, have studied their assigned project, came up with solutions to improve project performance and reduce costs, and presented their alternatives to the project delivery team at district headquarters. While visiting Jacksonville District, the students also met the district engineer, toured the district, and visit a project currently underway.

The Valparaiso University team studied the North Jetty Sand-Tightening and Jetty Extension Project at Canaveral Harbor, which is in the design phase. Because too much sand is entering the harbor, the students investigated the best way to sand-

Continued on next page

Indian living challenges Corps group

U.S. Army Corps of Engineers employees recently experienced stone-knapping, living in teepees, sweat-lodges, and primitive weapons to learn more about Native American cultural and environmental issues. The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) hosted the workshop April 16-19 at Lake Hump-Ti-Pin ("grizzly bitten") in the still-snowy Blue Mountains near Pilot Rock, Ore.

Twenty Corps participants from Walla Walla District, Northwestern Division, and Washington, D.C., participated in the four-day experiential workshop to increase their personal understanding of cultural and environmental resource issues. The primary trainers were Jeff Van Pelt, Manager of the CTUIR Cultural Resources Protection Program, and Carl Sampson, Chief of the Walla Walla Tribe. *(Editor's note: Some tribes do not use the term "chief," but it is proper in this case.)*

The training was carefully crafted to demonstrate how tribes optimized and balanced their lives within natural ecosystems for thousands of years. Participants also enjoyed practical team building tasks, such as creating and using historic crafts and hunting tools. The week taught the Corps people methods of working at their personal best and contributing to team efforts in a tribal way.

"The purpose is to build trust, to learn, to gain a new perspective, to build long-lasting relationships, to change for the better, to respect resources and culture," said Van Pelt. "But the most important is to have fun."

"This is a once-in-a-lifetime experience," said Lt. Col. Rich Wagenaar, Walla Walla District Engineer. "I think everyone here has realized that the Umatillas are letting us into their world, and that's important. It's a trust, trust to let us in and allow them to trust us back."

Everyone participated in the daily sweat lodge where the chill of the day was warmed by red-hot rocks, herbal steam, discussions of tribal living in the Pacific Northwest, and jolting immersions in a nearby mountain stream. Hearty dinners



Jim Waddell demonstrates good atlatl throwing form. (Photo by Mona Wright)

prepared by a rafting outfitter (as were all the meals) followed that provided much-needed energy for the late-evening campfire councils.

The entire experience was designed to bring everyone closer to nature, and the group slept in teepees in the 25-degree nights under deep wilderness skies. It snowed each night, but hot coffee, a warm breakfast, and the morning sun melted the night chill each morning.

The participants learned about the cultural and ecological perspectives of the CTUIR. One of the most powerful presentations was an evening of Native American dance and song performed by Sampson's grandson, Ian. Dressed in traditional buckskin and feathers, the 11-year-old danced, sang in his native language, and spoke of his family ties and responsibilities to the environment, his parents, and grandparents.

The Native American trainers engaged participants in many simple but unfamiliar tasks during the four days, notably building atlatls. An atlatl (pronounced "at-



Phil Bernge and Ron Gosselin try to figure out the fine points of teepee raising with the guidance of tribal member Lloyd Barkley. (Photo by Carl Christianson)

lat") is a spear-thrower, a prehistoric hunting weapon that uses a two-foot lever to hurl a five-foot spear with greater range and power than is possible with the arm alone.

Building an atlatl involved chipping spearheads from obsidian, cutting spear shafts and spear-throwers from chokecherry trees, and using pine-pitch glue and sinew to put it together. The area was littered with obsidian chips and discarded broken arrowheads, just like one would find in a 5,000-year-old archeological site. The admonition "Never knapp obsidian in camp; the razor-sharp waste will cut you to pieces." created an "Aha!" moment in everyone's understanding of where prehistoric archeological sites are located.

The group learned the range and power of their homemade weapons during an "Atlatl Olympics" on the fourth day.

"The physical experience was fun, but the real experience took place on a different level," said Allen Pomraning, Outreach Project Manager of Walla Walla

District. "It had little to do with campfires and teepees. It was about listening; it was about hearing nature. It was about being quiet enough to hear my ancestors speak. It was about my life and my connection with the whole. It was about having someone care enough to help guide my learning."

The training reinforced the environmental principle of living in harmony with nature. The tribes model many of the values western culture need for shaping the future with sustainable development. The tribes evaluate the effect of an action seven generations into the future, which is beyond the scope of most Americans' vision.

"The concept that each individual has a specific gift for the tribe is the same as humans filling a specific niche in the ecosystem," said Alden Foote, a project manager with Walla Walla District. "Their concept of power and wealth is not about how much one can get, but how much one can give."

"It is with new understanding that we undertake decisions," Wagenaar said. "It's a responsibility to protect the resources, keeping in mind the people who will be here seven generations from now."

"I feel I gained a better perception of the culture of the three Umatilla Indian Tribes," said Chris Hyland, a project manager with Walla Walla District. "As we have a government-to-government relationship with the tribes, I thought this was an important step in improving our relationship with CTUIR."

The success of this workshop has led to requests for additional workshops from several levels within the Corps. A number of tribes and agencies have also expressed interest in future workshops. Walla Walla District is working with the Nez Pierce and the Collville tribes to provide future workshops during the spring and fall each year.

There is another workshop planned for this October that will be hosted by the CTUIR.

(Dutch Meier, Jim Waddell, and Allen Pomraning contributed to this article.)

Value engineering

Continued from previous page

tighten the north jetty. Dredging the harbor is not a good alternative because it is expensive and time-consuming for channel traffic. A more permanent solution is needed to the current sand-tightening method of using geotextile tubes since they have reached their maximum capacity of sand stoppage.

So the team of engineering students came up with four recommendations and six research ideas involving options and combinations. It's now up to the district's design team to decide if they will use one of the recommendations.

"The ideas and options were well received by the project manager and project engineer with this project," Wolz said. "Their ideas to expand the use of sea-oats, reuse the existing geotubes, sheet pile material substitution, and use pressure grouting are under consideration."

The UF engineering study team sought innovative alternatives for the planned modifications to the Tamiami Trail, part of the Everglades restoration program currently in the design phase. Their recommendations, with a potential total savings of more than \$3 million, are currently being reviewed by the design team.

The process has been rewarding for the students. "I learned a lot about what the Corps does," said Ben Gustafson of the Valparaiso University team. "This whole experience is helping me decide where I want to work after I graduate."

The students said that the most gratifying part of being involved in this VE process was working on a real project versus a school lesson.

"The possibility that our ideas will be used and make a difference meant a lot to all of us," said Tim Weidner of the Valparaiso University team.

Because building a civil works project is long and costly, applying VE principles to the process makes sense. Along with waiting on funding and approvals and the time it takes for the design process and plans and specs to take place, technology changes and needs can also change during the process.

"VE is taking that second look to ensure we're doing the most cost-effective design," Burch said. "If you take the time to enhance a project's performance and execution and improve its quality, the cost savings automatically happen."

"This is a valuable experience for all involved," Burch said. "We're saving costs, building relationships, and recruiting future employees all at the same time. We look forward to implementing these bright students' ideas now, and working with new engineering students in the near future."

Volunteers

Canadian couple find work, culture, friends at Corps lake in Texas

Article and Photos
By Judy Marsicano
Fort Worth District

Mary and Richard Sitko, from Ontario, Canada, spent the winter at Fort Worth District's Proctor Lake near Comanche, Texas, doing whatever needed to be done as part of the U.S. Army Corps of Engineers Volunteer Program.

While they each worked 20 hours a week, they camped free at a quiet, picturesque park at the lake along with their two dogs, Sarah and Beau. During off-duty hours, they visited with other campers, observed gray fox, deer, squirrels, birds, and other wildlife, all the while basking in the friendliness of the people in rural West Texas.

The Sitkos are like many volunteers who work around Corps lakes, swapping their talents and services for free amenities.

Travelers

"We've always had a love for traveling," said Mary. "So when we retired seven years ago, we started traveling for six months each winter from California to Florida to the Carolinas and everything in between."

One year, just to keep themselves busy, they visited 11 states and 57 campgrounds in a five-month period. They quickly realized that although they were getting an overall taste of each area, they were not experiencing the heart and soul of the people who lived there, what makes them unique, and what their daily lives are like.

That's part of the reason they wanted to settle down in one location.

"We were in Central Florida last winter at an RV golf resort when we saw an ad about the Corps' volunteer program," Richard said.

They visited the website listed in the ad for the Corps of Engineers Volunteer Clearinghouse which provides access to a variety of volunteer opportunities by location, effective date, how many hours had to be worked, and who the sponsoring partner was.

"We submitted our application, and the clearinghouse sent us brochures on all the areas interested in using volunteer services," said Richard. "We selected southern states (Texas, Florida, Arizona, New Mexico, and Georgia), any place that we thought would be warmer than our home in Canada."

The clearinghouse forwarded the Sitkos' application to the selected states, which brought them inquiries from Sante Fe, N.M., and the mountains of Northern Arizona.

"I wasn't about to drive 2,000 miles to sit in the snow, and we knew that at 6,200 feet, we would be cold," Richard said.

Then 9-11

Then 9-11 happened.

"After September 11, it really hit us as Canadians that we wanted to do something to help the Americans in some way," Mary said.

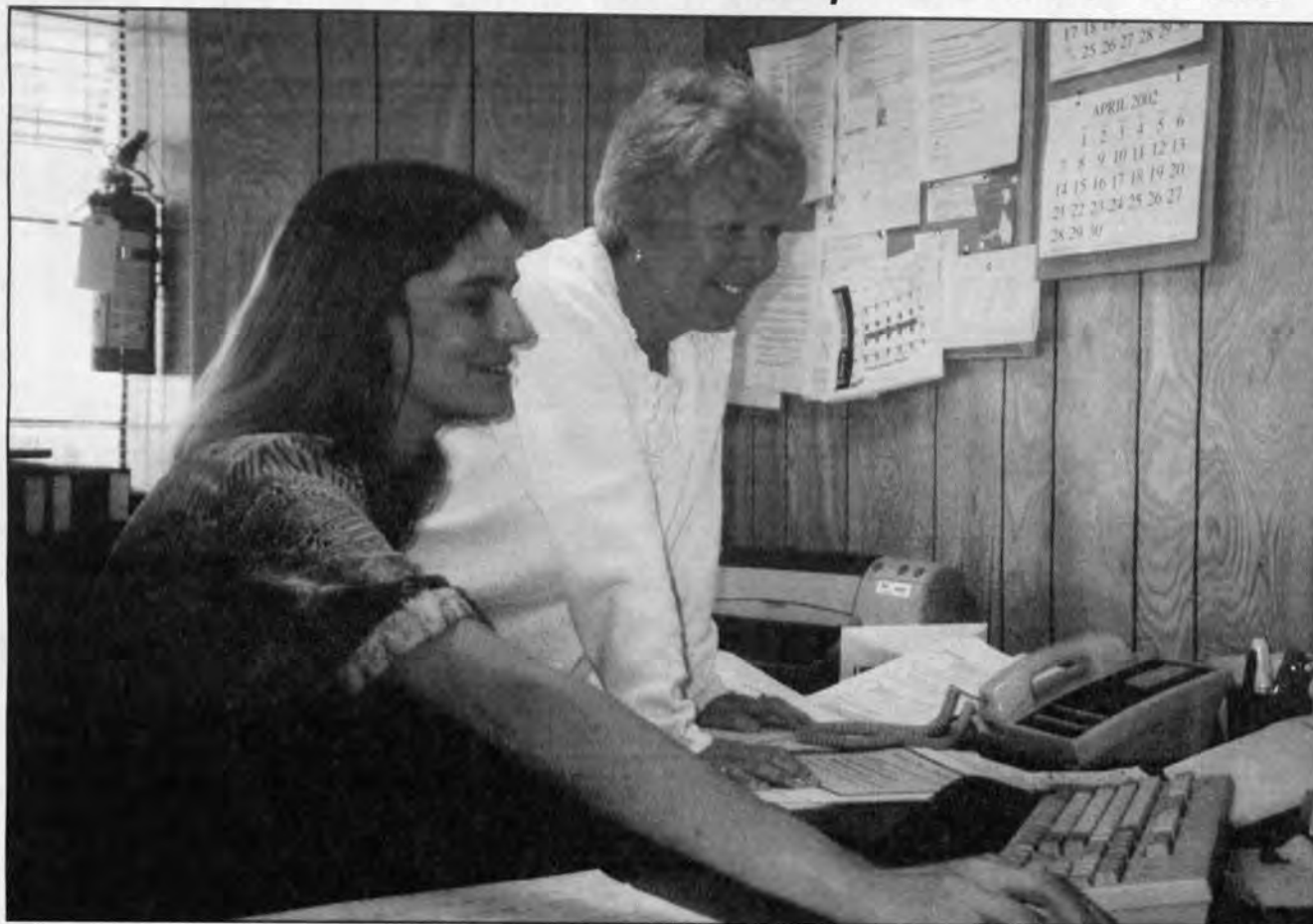
They had been guests in this country for six years for six-month visits and wanted to do something for their adopted homeland. They had met so many nice people and had always been treated so royally.

"9-11 sensitized us, so whatever we could do would be a small gesture on behalf of Canadians to help the effort," said Mary.

Their first reaction was that they would not be welcomed back in the states since they were Canadian, and with the Corps being part of the U.S. Army, they didn't think they could participate in the volunteer program because of security issues. But that was not the case.

When the Sitkos arrived at Proctor Lake last Nov. 1, people thought it odd that they found their way to Texas and Proctor Lake.

"We were always quick to tell people we were volun-



Mary Sitko (standing) works with Tonya Lippe, a support service specialist at Proctor Lake.

teers and not being paid, so they know we aren't taking work away from Americans," said Mary.

Mary and Richard were both born and raised in Canada, and both worked in management for a large nickel mining company called Inco, the world's largest producer of nickel used in manufacturing stainless steel and other products. By the time they retired, the company had downsized from 20,000 to about 4,000 due to new technology and mechanization.

During the last 10 years of his career, Richard worked the safety, health and environmental aspects for the refineries. At Proctor, Richard's first task was to clean up and reorganize the maintenance shop and help the maintenance personnel prepare the shop for an environmental audit. He helped check the equipment for safety, ensuring paint cans were properly stored and the waste disposal area was free of oil spills and other hazardous conditions.

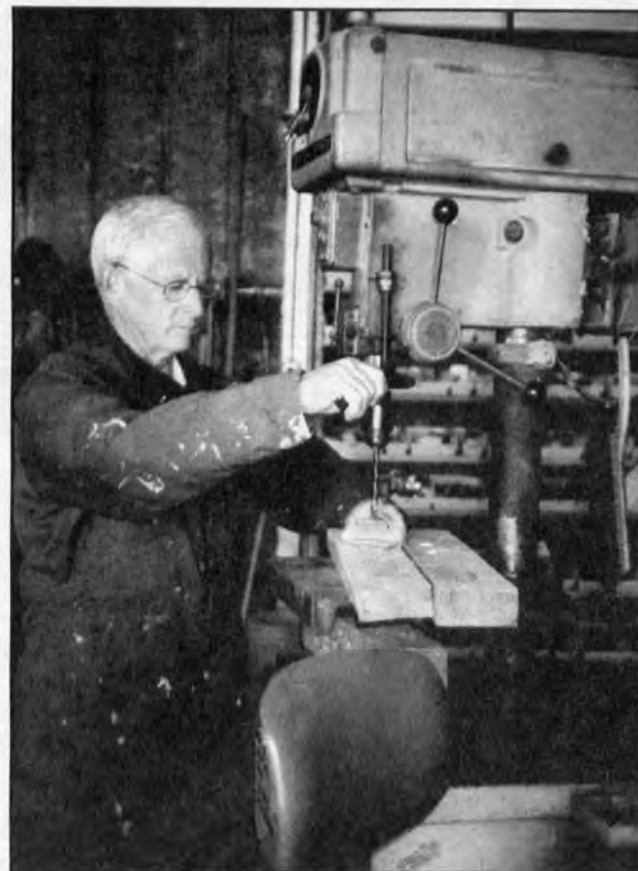
Hard work

"I sanded and painted campsite electrical boxes that had rusted and helped with tree maintenance, putting up signage, treating for fire ants, placing buoys on the lake, weeding and mulching beds, and did some carpentry work on a new group shelter," Richard said. On rainy days, Richard washed and waxed boats, repaired chainsaws and weed-eaters, and sharpened axes.

With her background in telecommunications, Mary found plenty of work to do in the project office. She greeted visitors, answered the telephone, filed paperwork, made photocopies, and helped schedule duck hunters in permit areas. She also helped implement a new system to rent group shelters, updated a park brochure, and organized historical slides and other documents.

Real asset

"The volunteer program has been a great asset to the operations of Proctor Lake, but to have volunteers like the Sitkos will absolutely spoil you," said Tommy Halfmann, West Texas Project Manager. "Not only are their services invaluable, but their friendliness and pro-



Richard Sitko operates a drill press in the Proctor Lake Maintenance shop.

fessionalism have been contagious around the lake, and they can be accredited for the significant boost in morale among all the lake staff."

At the end of March, the Sitkos packed up their 32-foot fifth wheel trailer and left the solitude of their campsite at Proctor. (Canadian citizens cannot be out of country for more than six months, minus one day.) They traveled back to Canada to another rural setting, their two-story home on Manitoulin Island, in the upper part of

Continued on next page

ENFORCE astonishes emerging leader

By Angela Baskin
Southwestern Division

If I could sum up the ENFORCE 2002 Seniors Leaders Conference in one word, it would be "intoxicating." As a member of the Emerging Leaders class of 2002, I was invited to shadow Brig. Gen. David Melcher, Commander of Southwestern Division; Ed Shuford, Chief of Military and Technical Directorate; and William Dawson, Chief of Civil Works Directorate to the conference at Fort Leonard Wood, Mo.

It was astonishing to say the least. The first day was registering for the conference, and later attending a bowling party ice-breaker at Daugherty Bowling.

On day two, we heard from Lt. Gen. Robert Flowers, the Chief of Engineers, and various speakers and presenters. Flowers presented a film titled "Keep on Rolling in Support of the Army and the Nation," which was his challenge to us.

The guest speaker was Hon. Les Brownlee, the Assistant Secretary of the Army (Civil Works)(ASA(CW)). Brownlee said that the U.S. Army Corps of Engineers is well-represented in Washington, D.C. and he was personally convinced that the Corps has never had a better Chief than Flowers.

Besides acknowledging the recent celebration of the Corps' 200th birthday in March, Brownlee gave a brief report on Operation Mountain Lion. He said the Army needs all that its engineers and civil works bring to this effort. He commended the 249th Battalion (Prime Power) for their service. Brownlee also said that he had observed as ASA(CW) that the Corps was filled with talented people, both military and civilian. Brownlee also noted that the



Angela Baskin (right) and Paula Wise, both Emerging Leaders from Southwestern Division, spend a moment with Lt. Gen. Robert Flowers, Chief of Engineers, during ENFORCE. (Photo courtesy of Southwestern Division)

Corps does not want to appear to be a growth industry, and we're not the advocates of specific interests or projects.

Flowers reviewed what the near future holds — military construction execution, transitioning to Transformation Installation Management, implementing Program Management Business Process (PMBP), environmental operating principles, the learning organization culture (sharing lessons learned), getting the strategic planning process "firing on all cylinders," and supporting the president's and the Secretary of the Army's priorities.

Flowers emphasized the four types of organizations — Knowing, Understanding, Thinking, and Learning. He said that

a learning organization uses open processes, conducts after-action reports, implements knowledge management, asks "Who else needs to know," and integrates learning into the decision-making process.

Flowers said that a world-class organization rarely makes the same mistake twice. These are the charges that Flowers gave to USACE leaders:

- Team building.
- Embrace the learning organization culture.
- Implement the Vision timeline.

"We've stayed the course and it's time to bring the Vision home," said Flowers in his closing remarks. "There are many opportunities and challenges. Build-up to

the breakthrough; PMBP is our future!"

Next came Brig. Gen. M. Stephen Rhodes, North Atlantic Division Commander, who presented PMPB. He reviewed the seven S's — strategy, skills, style, shared values, structure, systems, and stakeholder values. The Corps' organizational culture is structured around these seven elements. Rhodes reiterated that public trust is our most important value, and we are to achieve the corporate Vision using PMBP.

There was a presentation on Headquarters Strategic Planning, which related their goals of eliminating the migration of installation support dollars. There are some big situations where commanders want to control the dollars for training.

Dr. Mike Case, special project officer with the Engineer Research and Development Center, talked about "Force Future," and Mike Shama of Headquarters gave a presentation of Field Force Engineering and other applications of Corps expertise to real-world contingencies.

On the third day, we reviewed the second quarters FY02 Command Management Review, and Steven Coakley, Deputy Chief of Staff for Resource Management, gave an information briefing on Corps competencies and the Planning, Programming, Budgeting and Execution System, which outlined his proposal for enhancing the Program and Budget Advisory Committee process.

Emerging Leaders had lunch with Corps senior leaders, and Paula Wise of Galveston District and I dined with Linda Garvin, Chief of Real Estate.

Unfortunately, I missed the opportunity to observe Fort Leonard Wood's Leadership Reaction Course, the last major event of ENFORCE.

Volunteers

Continued from previous page

Lake Huron just across from Michigan.

"We'll go home in April to our two children and four grandchildren," said Mary. "It'll be beautiful all through the summer until October. Then, we'll get 'hitch-itch' and want to travel to a warmer climate."

But they didn't leave Texas without experiencing the local flavor. During their five-month stay, they learned many things about Comanche and surrounding counties.

"We've met a lot of interesting farming people from around the area," Mary said. "We've heard how 9-11 affected them, what struggles they've been through in their lives, and we understand the economy here as well as their lifestyle. It's a small rural community that is similar to our own."

Friends

The Sitkos found a caring vet who helped them when they adopted Beau, a rescued cocker spaniel from Fort Worth. They made friends with the library staff in Comanche, who discovered that Richard loves history novels. They loaned him books on Texas history, the Civil War, and the Comanche Indians. "It's unbelievable how complete their history section is," Richard said.

As a farewell gift, the women at the Comanche Library presented the Sitkos with a small quilt wall hanging depicting the library, handmade by one of the women.

"As you can see, the volunteer work was fulfilling for us," Richard said. "We got a sense of contributing something, and that's a nice feeling."



Volunteering 20 hours a week left Mary and Richard Sisko plenty of time to enjoy Proctor Lake, like walking their dogs Sarah and Beau.

New concrete improves live-fire training

By Karen Freeman
Fort Drum

Military installations are continually faced with the challenge to comply with federal and state regulations while at the same time enhancing and supporting the installation's mission. At Fort Drum, N.Y., the U.S. Army Corps of Engineers recently managed a project that stemmed from a cooperative partnership between the Environmental Division (Public Works Directorate) and Combat Readiness Training Division (CRTD). This partnership provided resources to meet the training goals of the 10th Mountain Division while minimizing adverse impacts to the environment.

When an existing live-fire "tire house" on Range 33 had reached the end of its useful life, Al Schwark, Chief of the CRDT, and Jim Haynes, Chief of the Environmental Division, initiated a project to replace it with a facility built with Shock-Absorbing Concrete (SACON), an environmentally-friendly product developed by the Structures Laboratory of the Corps' Engineer Research and Development Center.

Besides being earth-friendly, the SACON "shoot house" offers a high level of training safety, and gives Fort Drum soldiers a facility where they can conduct year-round live-fire training under simulated combat conditions in an urban/restrictive environment.

Under project management by New York District (NYD), the SACON shoot house was completed last October, a little more than one year from the start of construction, on time and within budget.

NYD provided the design package through a contract with Beardsley Design Associates of Auburn, NY. The bid to dismantle the old tire house and build the new shoot house was awarded to Strock Paving & Construction, an 8A-certified company in Buffalo, N.Y. Northern Companies of Fulton, N.Y., was subcontracted to manufacture the SACON blocks.

Environmental preference

Although other military installations have used SACON to form safety walls behind small arms firing ranges, Fort Drum is one of the first (if not the first) to mass-produce the material and use it to build an entire shoot house.

Before deciding on SACON, Schwark and Haynes evaluated numerous alternatives, including rubber blocks, sand-filled walls, and MATCH (Modular Armored Tactical Combat House) construction. Fort Drum also considered rebuilding the tire house, which had adequately served the training purpose, but also posed numerous environmental concerns regarding disposal of lead-filled rubber.

"There were advantages and disadvantages to every type of bullet trap we investigated," said Schwark. "Although the SACON facility incurred higher initial costs than other bullet traps, the trade-offs in terms of environmental preference, training safety, and training enhancements made choosing the SACON material an easy decision."

SACON was originally developed to reduce ricochets during urban training



The shock-absorbing concrete walls of the "shoot house" at Fort Drum, N.Y., gives soldiers a 360-degree field of fire. (Photo courtesy of Fort Drum)

exercises by "capturing" bullets. Low water permeability combined with the high alkalinity of the concrete would then encapsulate the lead and create a less soluble lead corrosion product, which ultimately reduces the leaching of lead into surrounding soil and groundwater.

The end result? A bullet trap containing lead ammunition that can be safely disposed of as non-hazardous solid waste in a landfill rather than disposed as costly and environmentally harmful hazardous waste.

Design and fabrication

To design a facility meeting the training requirements of the 10th Mountain Division as well as the same safety standards of the tire house, NYD and Beardsley Design Associates worked closely with the CRTD and Environmental Division on Fort Drum.

"We began this project by reviewing the SACON product, the capabilities it offered Fort Drum, and the possibilities of how it could be used on post," said Ed Sim, NYD Programs Project Manager. The Corps spent nearly one year perfecting a SACON product and shoot house design that considered the various weapon systems used by 10th Mountain Division troops, as well other requirements.

"It was a give-and-take process with Mr. Schwark and managers from the Environmental Division's hazardous waste and pollution prevention programs all participating," said Sim. "Eventually, we had a design that met the needs of all parties."

The new shoot house is a maze of six interconnected rooms and two hallways with four entry points. The floor of the structure is 18 inches of sand. The entire structure was built on an 18-inch-thick mat footer. An elevated catwalk along the perimeter permits observation by safety officers and unit commanders. A roof covering the entire structure protects the SACON blocks from snow and rain and allows for year-round training.

"This was an interesting project for all of us," said Tony Felder, project civil en-

gineer for New York District. "Although the construction portion of the project was fairly standard, producing and testing the SACON blocks for quality control was new and challenging for the contractor."

Northern Companies was instrumental in the fabrication of the SACON blocks.

"Consistent quality is critical to the usability and safety of the SACON product," said Felder. "Inconsistencies during the fabrication process might result in a SACON block that could produce ricochets, which could ultimately cause injury to those training in or around the facility."

The key to producing SACON blocks is the amount of foam injected into the grout slurry. Each block must weigh 90 pounds per cubic foot to give it the density to capture projectiles. Adding foam is a critical part of the fabrication process. Too much foam, drum rotation speed, water pressure, and grout temperature all vary the final product.

"If the mix becomes too light, it must be thrown out," said Felder. "It's extremely difficult to make the grout heavier once it is too light."

After complete fabrication, each batch was fired at using an M-16 rifle to test the depth of bullet penetration. Each batch that passed the quality control test was delivered to Fort Drum with a certificate of compliance.

Each batch of SACON material formed seven to eight blocks, so if one failed the quality test, the entire batch had to be discarded as scrap. At a cost of \$400-\$500 a block, it was important to get the quality right consistently.

Like a cake

"It's somewhat like baking a cake," said Felder. "Once you get the recipe right, you just follow it exactly each time a new batch of SACON is mixed."

Upon completion, the shoot house walls contained 492 blocks of SACON measuring three feet high, three feet deep, and four feet wide, plus 260 smaller "coping blocks" of SACON used at the base of the

of the facility.

Since it opened last November, Schwark has heard nothing but positive comments about the new shoot house. "The squads like the design and layout of the building, and the commanders appreciate the catwalk so they can better critique training and evaluate training methods," Schwark said.

"We use the shoot house for urban combat exercises such as entering and clearing rooms," said Capt. Antonio Paz, former commander of the 4th Battalion, 31st Infantry's B Company, the first unit to train in the SACON structure. "The flexibility to design different training scenarios is great. The new shoot house is definitely better than the tire house."

Soldiers have found that the structure itself offers training advantages over the previous tire house. "The cement block design better defines the corner and room dimensions to be more realistic than the tire house, which had rounded rooms and hallways," said 1st Lt. Michael George of the 4-31 Inf., B Co.

The SACON material also offers many advantages to training safety. Hazardous bullet debris is minimized when the bullet buries itself in the concrete. A bullet will not ricochet, even off frozen SACON, at an angle of 15 degrees or greater. Additionally, SACON will not burn, which reduces the risk of range fires during dry, hot weather.

As with any new product, there will undoubtedly be lessons-learned. Since Fort Drum is the first installation to use SACON as the predominant material in a shoot house structure, there is no history of product performance in the field. Fort Drum must begin building its own history of SACON performance data and maintenance records.

To monitor SACON deterioration, Range Maintenance inspects the shoot house after each use.

"After four months of training with the M-249 squad automatic weapon, M-4 carbine assault rifle, and the M-16 rifle, there's very little erosion to report," said Schwark. "Bullet penetration averages about three-quarters of an inch to an inch deep, which is consistent with the product testing conducted by the Aberdeen Test Center."

When the integrity of any blocks in the shoot house is compromised, the facility would be closed until repaired. To avoid unplanned and frequent closures, Schwark will schedule repair on eroded blocks bi-annually, which also reduces the likelihood that any block would ever reach an unsafe level of protection within a six-month period.

"Two repair periods per year is the most economical and least disruptive maintenance option," said Schwark. "It's also the best option in terms of soldier safety during training."

Future projects

With the SACON shoot house meeting and exceeding all expectations, Schwark and Haynes are looking at other applications for SACON on Fort Drum's small

Continued on next page

Recruiting and retention

Programs find, keep good soldiers

The U.S. Army makes no secret that recruiting and retention of quality soldiers is vital to its continued preeminence. Honolulu Engineer District (HED) supports these crucial missions through its real estate services and intern programs.

The Chief of Staff of the Army Gen. Eric Shinseki said, "Because recruiting is so critical to readiness, it is number one on my mission-essential task list."

HED is one of 18 Corps districts with a mission to support the recruiting efforts of the Army and the other armed services. The Corps supports nearly 6,800 recruiting and support facilities for the Army (2,022), Navy (1,725), Air Force (1,587), and Marines (1,465).

Big area. HED supports the Honolulu Company of the Army's Portland, Ore., Recruiting Battalion throughout the Pacific Region. Geographically, the district's area of responsibility is the largest in the Corps.

HED's support covers the Hawaiian Islands, Territory of American Samoa, Territory of Guam, the Commonwealth of Northern Mariana Islands (CNMI), Japan, and Korea.

In that area there are 24 recruiting stations — 13 Army and 21 Navy, Air Force, Marine Corps, and Army National Guard. For these recruiting offices, HED executes all office space leases, building upgrades, telecommunications support, furniture purchases, and emergency repairs.

"Whenever we have a problem, I know that within a short time the district will address it," said Ralph Walker, Portland Battalion Support Services Specialist. He said that the facilities and telecommunications support that recruiters receive from HED are excellent.

Honored. The Honolulu Recruiting Company was recently honored as the top recruiter in the western U.S. Sgt. 1st Class James Freedman, in charge of the Kapiolani, Honolulu, station, attributes part of their success to the support from HED. Freedman noted that in today's competitive job market, a professional-looking recruiting facility sets the right tone for prospective recruits.

"Our office is large, clean, and well-lit,



1st. Lt. Tom Piazzzi (left), a Honolulu Engineer District (HED) intern, checks work on the Palau Compact Road project with project engineer Mark Wittrock. HED is overseeing the Department of Interior 53-mile road project in the Republic of Palau. (Photo by Doug Makitten, HED)

and meets our mission requirements," said Freedman. "If we have a problem with lighting, building fixtures, or janitorial service we just call and the Corps provides us with excellent, timely service."

Results. In fiscal year 2001 (FY01), the Army recruited nearly 1,600 Pacific Islanders into the Army or Army Reserve. Recruits came not only from Hawaii, Guam, CNMI, and American Samoa, but also from the Federated States of Micronesia (FSM), the Republic of the Marshall Islands (RMI), and the Republic of Palau (ROP). Residents of FSM, RMI, and the ROP can volunteer for the U.S. armed forces through the Compact of Free Association signed in January 1986.

While HED executes a relatively small portion of the Army's FY02 \$172 million recruiting facility program, its support to Army recruiting is important. HED provides access to the military services for Pacific Islanders. This helps ensure diversity of the force from this vital part of the world.

Recruiting quality soldiers and officers is important, and so is retaining them. In recent years, the Army faced a problem with the loss of company-grade officers.

Analysis determined that young officers would be more likely to continue serving if they knew the variety of career options the Army offers. In response, Corps districts including HED, Alaska, Charleston, Far East, Fort Worth, Mobile, Portland, Savannah, Seattle, and Walla Walla implemented officer intern programs.

Officer interns. HED's intern program began in August 2000 through a memorandum of agreement with tactical engineer units in Hawaii. The district's program exposes Army officers and cadets to the Corps from the perspective of a field district, alerting them to the many opportunities to serve in the "non-tactical" side of the Corps. The program invests in junior officers, relying on the mentorship, coaching, and teaching of HED civilians.

The typical internship lasts three weeks, and enables company grade officers and cadets to learn about work HED performs at one of four resident offices throughout the Pacific. This includes the Palau Compact Road Resident Office, Kwajalein Resident Office, and the Schofield Barracks and Fort Shafter Resident Offices in Hawaii.

This professional development opportunity encourages officers and cadets to

appreciate the diversity and opportunities to serve in the Corps. Participants gain a greater understanding of the functions and roles of the Corps, the support provided to major commands and installations, and the complexities of construction management in the field.

Capt. Kristen Youngman, then commander of the 70th Engineer Company, was one of the first participants in HED's intern program.

"Growing up in northeastern Pennsylvania I saw the Corps as a federal government organization that invested in the local community through its civil works construction projects," said Youngman. "The intern program helped me realize that the Corps' mission is much greater, especially in impacting soldiers' lives. The new barracks and family housing construction in Hawaii, work place renovations, and other facility construction demonstrates how the Corps serves the Army and soldiers."

An important facet of HED's program is the opportunity for officers and cadets to interact and learn from DA civilians.

Hands-on. "During the intense three-week program, participants learn the life cycle process of a construction project from its inception, through design, and into construction," said Louis Muzzarini, chief of HED's Construction Branch. "The officers and cadets work closely with our professionals, who share their knowledge, life experience, and lessons learned. The insights and techniques that the officers and cadets take away have applicability to both tactical and non-tactical situations."

Investigating design difficulties, inspecting quality control, and scoping project requirements are a few of the tasks visiting officers tackle during their internships.

"We structure each officer's internship to their interests," said Muzzarini. "We generally expose them to all the details of delivering a project, including project management, contracting, and safety. The intent is to get the officers into the field, working with contractors and our construction representatives and field engineers."

"Exposure to the civilian side of the Army and to the Corps was invaluable," said 1st Lt. Jennifer Stobie, assigned to the 84th Engineer Combat Battalion (Heavy). "We're surrounded by the projects these people build and manage, and they bring a lot of management and construction expertise to the Army. This was a great experience that I found enlightening, and the people in the district were fantastic!"

Lt. Col. Daniel Cummings, the 84th's commander, said the program works well.

"Since the program started we've sent five officers to HED for three weeks," said Cummings. "Every officer upon completion of the internship shares lessons learned and personal observations that have had a positive impact on junior officer retention in the 84th. To date, not a single officer in the unit has resigned from active duty. In fact, many are inquiring how they can get into a Corps district following successful completion of company command."

(Zandra Smith, Capt. Kristen Youngman, and Lt. Col. Ronald Light contributed to this article.)

Concrete

Continued from previous page

arms ranges. Plans are already in place to use SACON material as a backstop, retaining wall, and separation wall on various ranges on Fort Drum. With its ability to be shaped into different forms and colors, SACON offers unlimited potential for use as coffins for pop-up targets and simulated training obstacles such as logs, stumps, and rocks.

Haynes and Schwark share ideas for what types of bullet traps will meet the training needs of the 10th Mountain Division, while lessening adverse effects on the environment. "If we identify bullet trap technology that helps the Army meet its goals to reduce hazardous waste and pollutants, Mr. Haynes is willing to assist

with these range projects," Schwark said.

In this case, the Environmental Division allocated \$56,900 in funding to dismantle, remove, and recycle the tire house, and \$433,000 for building the new shoot house with SACON. The roof and catwalk were funded by the CRTD at \$86,300 and \$61,000, respectively.

As weapons and systems change, Fort Drum must constantly meet new standards in training. The environmental impact of these changes is substantial and long-term vision is required to effectively manage the land required by training, while keeping Fort Drum in regulatory compliance. The same holds true at military installations worldwide.

In fact, other military installations have

requested the SACON shoot house design/contract package developed by the Corps at Fort Drum. "We've sent out several compact disks containing the design package to other installations," said Sim. "It's a standard design that can be used as-is or modified according to specific training requirements."

"It's been exciting to be on the cutting edge of this new product," continued Sim. "Others will be able to use our research and development to create environmentally-friendly and effective SACON bullet traps at training facilities worldwide."

(Karen Freeman is a community relations specialist in the Environmental Division of the Public Works Directorate at Fort Drum, N.Y.)

Engineer enjoys challenge of running in marathons

By Mike Tharp
Los Angeles District

Dina Aman, a civil engineer with Coastal Design Branch in Los Angeles District, saw her dedication and discipline rewarded last April when she competed in the granddaddy of American marathons in Boston. The 30-year-old ran the 26.2-mile race in three hours, 44 minutes, finishing 8,311 out of about 17,000 runners. For those keeping score, that's one mile every 8.5 minutes.

'I can't wait.' "Even when I was hobbling around afterwards, I told my husband, 'I can't wait to do it again,'" said Aman.

To qualify in her age group for Boston, Aman had to run a 3:40 marathon. She did that last November, clocking 3:34 at Long Beach, Calif. And although Boston was only weeks away, Aman also entered the L.A. Marathon in March and finished in 3:55 "Just to put my body to that test."

Aman has been a serious distance runner since her college days at California Polytechnic Institute in Pomona, Calif. (She also holds a master's in construction management from California State University in Long Beach.) She finished her first marathon, the L.A., in 1997, and two years later reached her personal goal of breaking four hours at Long Beach.

Tough mama. After that race Aman and her husband, Sean, discovered that she was six weeks pregnant. She continued to train and occasionally compete

until five months before giving birth. Six weeks after Yusuf was born by Caesarian section, the willowy young woman resumed her regimen, at first pushing her first-born in a regular old stroller as she dashed through Griffith and Balboa Parks on her training runs.

"People were probably thinking, 'She stole that baby!'" Aman said, and laughed.

Eventually, Sean bought her a jogging stroller. Now almost two, Yusuf has been in three races where Mommy pushed him, including a third-place finish recently in the Philharmonic 10-K, when the mother-son combo covered 6.2-mile distance in 49 minutes.

Training. Aman started running a dozen years ago "to lose weight, deal with all the stuff going on in school," and has steadily ratcheted up her conditioning. When she's training for a specific race, she churns out 45 to 50 miles a week; otherwise, it's closer to 30. In other words, even when she's slacking off, Aman runs more than four miles a day.

She also lifts weights and employs "spinning," a grueling hour-long gym session on a stationary bike that promotes leg strength and cardiovascular capacity.

Recently, she joined the Second Wind Track Team in the San Fernando Valley to improve her speed. She sprints 400, 800, and 1,600 meter intervals several times around the track.

Challenge. "It's become personal for me, going after my own personal goals and successes," Aman said. "It's not re-

ally work. I get very competitive as a way to improve myself."

During her workouts, which include steep trail runs as well as flat parklands, Aman said she has time to think, "blow off steam, reevaluate my life, whatever situation is going on. I tell my husband, 'I need to go out and run.' He understands I need to go think."

She usually runs evenings after work, and mornings on weekends.

Carry over. Aman firmly believes her running carries over to her work. She just finished five years out in the field on the highly praised L.A. County Drainage Area flood-control project, and is now working on the Port of Los Angeles channel-deepening project.

"When I start something I need to finish it," Aman said. "As an engineer, my goal is always to be better. That's the same mentality I have in my runs."

The district also benefited from Aman's participation in the last Jimmy Stewart Marathon Relay when the L.A. team, for the first time ever, finished first. Each member of the five-person team ran 5.1 miles, beating out teams from the National Guard and the Air Force, among others.

Inspiration. Aman is especially grateful to Manuel Garcia, her running partner, who works for Thomas Landclearing Co., a Corps contractor.

"He has always believed in me and really helped me develop as a runner and a person," she said. "After his battle with cancer, he came back strong and his desire



Dina Aman runs in the Boston Marathon. (Photo courtesy of Los Angeles District)

and love for the sport inspired me. I owe a lot to him."

What's down the road for this driven designer? More of the same, only longer. Aman's got her eye (and feet) on more races like the 50-kilometer (31-plus miles) trail run she did in January at Mt. Wilson, Calif. So far, she's been able to avoid the temptation of ultramarathons, 100-mile overnight desert-and-mountain courses. But her reluctance could change as the attraction of testing her limits persists.

"I hope I'm still running when I'm 80," Aman said.

The 'Camp Doha Prison Yard Breakout' might be the first marathon in Kuwait

By Maj. Jeffrey Hines
Camp Doha, Kuwait

What do you do when you really, *really* want to run a marathon, but there aren't any, and there isn't even room to lay out a 26.2-mile course?

Well, you design your *own* marathon. And you run around in circles a lot.

When I first got to Camp Doha, Kuwait, I met Capt. Joe Clark from Texas who wanted to run a marathon. Although the post sponsors a 5K (3.1 mile) run every month, a marathon seemed too daunting a challenge. We checked to see if Kuwait has any marathons, but couldn't find any.

So Joe decided to create his own.

He named it the "Camp Doha Prison Yard Breakout." (Is this Kuwait's first marathon?) We worked together to set up a route. It's about 4.3 miles around the compound here at Camp Doha, so that's about six laps for a marathon, and we wheel-measured it.

Joe wanted to do it on Boston Marathon weekend but, due to 100-plus degree heat during the day, we decided to have a 1:30 a.m. start time.

Joe got T-shirts and finishers medals designed, lined up volunteers and medical support, and even got the messhall to serve spaghetti the night before. (Keep in mind, this messhall serves 6,000 people at a shot, so making a menu

change is not easy.)

It makes it easier to get volunteers when you have 6,000 people living somewhere on the race-course. The course also has a 24-hour medical clinic, and almost 100 bathrooms (in a six-lap marathon, you count things like that to battle boredom). Joe laid out two aid stations so that you pass each one twice on a loop, so there was Gatorade, water, etc. almost every mile.

As a final note, the course was flat and, except for the mundane scenery (there was always a 10-foot-high wall on your right shoulder), it was the perfect marathon course.

We got 50 entries - 34 marathoners and eight two-person relay teams. We had soldiers, sailors, Marines, and one guy from the Czech Republic.

I worked all day Friday and got off at 9 p.m., went back to the bunk, and tried to get a couple hours sleep. At 1 a.m. I walked over to the start. The conditions were excellent



Maj. Joe Clark (left), 1st Lt. Faye Hutchison, and Maj. Jeff Hines won the Camp Doha marathon. (Photo from "Runners World")

— 65 degrees, little wind, and the smoke from the big power plant next door was blowing the other way.

We got donations of Power Gel from the manufacturer, and we even had race numbers courtesy of Greg Baum's Flying Feet. We probably had 30 volunteers. (Hey, what else is there to do on Camp Doha at night?)

The Czech runner brought about a dozen supporters waving flags and everything. Looked like a soccer match.

I kept Joe company to help him set a personal record of three hours and 30 minutes (his previous was 3:35). So we set a goal of eight minutes per mile. After about four laps the volunteers and crowd support "hit the wall" (it was about 4 a.m.) and the cheering dropped off noticeably.

Well, after about the fifth mind-numbing lap, Joe and I were running second and third. With about three miles to go we came up fast on this guy (at night you come up fast on everybody) and passed him. With about 50 yards to go I dropped back a bit and gave Joe the honor of finishing first. He put this thing together, after all.

We ran a 3:31. The female winner was Marine 1st Lt. Faye Hutchinson with 3:40. The Czech guy finished in about seventh place, and immediately lit up a cigarette.

As I limped back to my bunk the sun was rising, and it was just a great experience. Imagine finishing a marathon by 5 a.m.! Then you have the whole day to consume Motrin and avoid steps.

'Post' reporter

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with people at the Corps. A couple, but not many. And when I went to the Senior Leaders Conference, I hope it was productive for the Corps, and I certainly didn't object to the questions. I can dish it out, and I'm willing to take it.

It's funny — people are always saying that the Corps is closed to the public. Even Corps people say that. I never said that, though. Even when people weren't allowed to talk to me, I *still* thought it was pretty open. Most of the documents I quoted in that series were Corps documents. Almost all of my information came from the Corps.

Down in Florida, on the stuff I'm working on now, the cooperation has been excellent. I think it's been helpful to see some Corps people in their native habitat. I went out on the St. Lucie River with Laura Mahoney and Steve Traxler, and we had a good time. And I've met a bunch of people in Jacksonville District.

Anything you would have done differently in your coverage of the Corps?

Yes. There were two stories I wish I could do differently.

One was a congressional hearing. In the story I emphasized the senators who were kicking the Corps around, and I downplayed the fact that they were also saying how much they respect the Corps.

I'm not saying I missed the news — Congress *neversays* any of the tough things they were saying about the Corps, and they always mouth those pieties about the wonderful organization builds their pet water projects. But I think I should have explained that point and made it clear that the usual pieties were still being mouthed, so that the context would have been clearer, and so that it didn't sound like some kind of major change was imminent.

The other one that I've wrestled with a bit is that FUSRAP story. There was nothing incorrect in that story, either. But the Corps was the first environmental reporting I've done, and if I had known then what I know now about low-level radioactive waste, I might not have bothered with that story.

I think I probably made low-level nuclear waste sound like more of a crisis than it is. Most of the series in September 2000, in my opinion, showed the Corps working directly at cross-purposes with its stated principles. But the FUSRAP story was more of just an honest disagreement among agencies.

If you were in a federal agency that is the subject of a negative series of articles, what do you think is the best response?

Well, the first thing you do is point out all the factual errors, if there are any. In my series about the Corps, there weren't any.

The best way to respond is to get in front of the story. The C&D Canal thing got shut down, and I don't see why that wasn't done the day after the story came out. The story was clear. Here's a project with no benefits and huge costs that has been a nightmare from Day One. I was surprised that the Corps didn't immediately say, "We're shutting down this project. It doesn't reflect our principles."

I think the day Gen. Flowers testified before the Senate after my series was one of the better days for the Corps. He didn't duck the issues, and he said these are things we need to work on more. So I think more responses of that nature would have been helpful.

I've always been surprised there haven't been more substantive (as opposed to rhetorical) responses to problems exposed by independent investigations. How can Corps analyses have credibility today when two years ago the Pentagon said they can't be trusted, and the Corps did nothing in response?

Can you compare the way the way the Corps worked with you compared to other federal agencies? Is there stuff they do that we should do?

There's a certain Bizarro World quality I find in the Corps that I just don't find at other agencies. Your people sometimes say things that are counter-factual, beyond straining credulity. To say those things with a straight face makes it hard to take anything you say seriously.



Mike Grunwald, a reporter for the "Washington Post," addresses the 2001 Senior Leaders Conference in Chicago.

I know it's not nice to say, but some of your projects are stinkers, and the Corps has gotten into the habit of defending stinkers. I still find in projects like the Yazoo Pumps, the Oregon Inlet Jetties, the Dallas Floodway Extension, and the Big Sunflower River that Corps officials say things that don't jibe with their own documents or any other form of reality. They'll say a project won't affect the environment when their own documents say it will affect 36,000 acres of wetlands. They'll say nobody tried to cook the books on a project when there are e-mails specifically telling people to cook the books.

Even look at a project like the Red River, which was shoved down the Corps' throat. The Corps' defenses went like this — "A, we said this project was a stinker. B, this is a perfectly good project; why are you criticizing it? C, it's old news because it's done. D, you shouldn't write about any project that aren't done because that's premature."

So there are mixed messages that step on themselves.

The Corps often emphasizes that it only does what Congress tells it to do. We all know you're a more political agency than that, but OK, let's say that it's true. Why don't I ever hear the Corps say, "This project is a stinker. We've been told to build it anyway. We'll build it; we'll do the best we can. But our analysis says it's a stinker."

So my short answer is, more plausible answers.

So from other federal agencies you've gotten more consistent, candid answers?

I think that's right. Or at least more plausible answers. Most of them wouldn't claim that a "Program Growth Initiative" was not intended to grow their program. Most of them wouldn't claim that a National Academy of Sciences study trashing them was actually praising them. Or at least they haven't claimed that to me.

How do you respond to the charge of bias?

The first thing I'd say is that I had barely heard of the U.S. Army Corps of Engineers before I started writing about it. It's not like I had some sort of bug about the Corps. I'm a journalist. I just write things that sound interesting, and I kind of stumbled into the Corps. It was a huge and important agency that no one was watching. It had some huge problems with boondoggle projects and skewed analyses that no one had noticed. I thought I could make people see that this agency is a big deal, and I was right.

You'll also notice, if you go back and read the series, that it's not just a bunch of enviros whining about the Corps; you'll see port directors admitting that their projects are boondoggles, and Corps officials alleging that their own studies of the Mississippi and Snake rivers are skewed, and federal judges ridiculing the way the Corps' 404 program deals with cumulative impacts.

I'll argue to the death that I'm absolutely fair. I listen to everybody; I have an open mind. What I think you *can* argue about is balance. I think that's the sort of thing that reasonable people can disagree about.

I didn't feel an obligation that for every one thing that was negative about the Corps I had to put in something positive. I was telling about an agency with serious problems. I satisfied myself about these problems; I found numerous examples; I chose some examples and went into detail to illustrate the Corps' problems.

I made every effort to give the Corps of Engineers a chance to respond, and I *did* let them respond. Even when they did *not* respond to me, I tracked down their

Is it OK or not OK for a reporter to express his or her opinion in an article?

We can dance on the head of a pin about what opinion is. Certainly, if you've got an ideological bias, you've got to keep that out of your stories.

What I developed over the course of this reporting (and it was *reporting*; I did more than 1,000 interviews) was this factual truth that there is a serious problem with people skewing studies because of political pressure. I found those e-mails. I tracked down those documents. I compared the Corps' pronouncements to reality. "The Corps said the benefit cost-ratio was 'X.' Here's precisely how they got that; here are seven different things they got wrong." I did *not* make this stuff up!

Afterwards people asked, "Why did you focus just on the bad stuff?" That's a fair question — "Why do we focus just on the planes that crash? We don't write stories when they land safely." My answer (and it may not be perfect) is that I tend to write about the crashes. Frankly, if I worked for the Corps, I'd want to deal with the crashes, too.

A lot of people in the Corps were absolutely delighted to see my stories, because they hope the leadership will be forced to focus on problems they've been complaining about (or thinking about) for years.

I'm aware that my stories are not exactly morale-boosters for many of you. But I'd like to think the problems I exposed can be fixed without hurting the morale of the Corps. You'd think getting the agency on the right track would *help* morale.

Do you feel the news media can influence public opinion. Is that what you were trying to do?

That's an excellent question, and the answer is "Yes," and "Not really."

The *Washington Post* has 535 readers who work in that building on Capitol Hill, and one reader in the White House. So it's silly to say we don't influence public policy.

With that said, when I wrote about the Corps, my feeling was that I'm just going to throw this out and let the chips fall where they may. And I think they're still falling.

When you approach an article, do you have a plan, or do you just go where the story takes you?

It depends.

The original Corps series was a total accident. I was going to do a series on farm policy. I was talking to somebody about crop insurance and they mentioned how the Corps has been bad for rivers. Then I did a little two-day series about how the Corps has dredged rivers for barge traffic that never materialized, and that was going to be it. But then I heard about Don Sweeney the whistle-blower.

The Everglades was more planned. I came into it knowing some of the questions. One of my operating principles is that this is one of the most important environmental projects ever, and people have no idea what it really is.

So I wanted to find out a lot more about it because I knew this was going to be interesting. It's the Everglades; it's the biggest restoration project in history; it's George Bush and Jeb Bush. It's just interesting!

So I really try to just follow the reporting. The first thing I did was go to the Everglades Coalition meeting, where I sat down with a bunch of Corps people, and the next thing I did was go to Jacksonville, Fla., to talk some more with the Corps. I let the Corps give me an itinerary of who I should talk to.

So you're just trying to soak it all in first?

Yeah, and I respect the Corps' expertise in this, so I went to them first. So that was my first trip, just talking to the people doing this project. I asked a million questions, and I will say that that I think I got some very candid answers.

When the series runs, some of their bosses might think they were *too* candid. I guess we'll see.

Now that you're a Corps expert, what would you say are the best and worst things about us?

Best thing? The people who work there. That's probably the kind of stuff that people say all the time, but I really think that's the best thing, the competence and diligence of the people who work for the Corps.

The worst? The willingness of its leaders to allow a 21st century agency to be used for 19th century purposes.

Laws, policy firm up telework rules

By Nancy Stragard
Headquarters

A government-wide initiative is underway to significantly expand the telework program. This program allows eligible employees to work at alternative worksites, including their homes, on a regular and recurring or ad hoc basis.

The telework initiative (originally called "flexiplace" and later "telecommuting") is based in law. The law requires all executive agencies to establish teleworking policies allowing eligible employees to participate in teleworking to the maximum extent possible without diminished employee performance.

The law was implemented in the Department of Defense by the "DoD Telework Policy" and "DoD Telework Guide" published last October. Neither Department of the Army nor HQUSACE will issue separate telework regulations.

PL (Public Law) 106-346 also directed the Office of Personnel Management (OPM) to ensure that the telework policy was applied to 25 percent of the federal workforce by April 2001. An additional 25 percent of the workforce is added in each subsequent year so that by the end of fiscal year 2004 (FY04), every eligible federal employee is offered the opportunity to telework.

Lt. Gen. Robert Flowers, the Chief of Engineers, fully supports this initiative and wants supervisors to offer telework to all eligible employees now, rather than waiting until the end of FY04. In his "Quality of Worklife Flexibilities" Commander's Policy Memorandum #9, issued on Jan. 25, Flowers wrote, "We must maximize use of management flexibilities to determine *where* employees work, *when* they work, and *how long* they work."

Telework is one of the management tools available to help employees balance work and family demands. It is a benefit that can help USACE recruit and retain a high quality workforce. It is a way to accommodate people



with disabilities and those recovering from illness or injury. It also reduces traffic congestion and decreases energy consumption.

However, employees should not feel they are being forced to telework. Telework is *not* suited for every position or every employee. Thus, supervisors must take responsibility to determine position and employee eligibility for the telework program. The DoD Teleworking Policy provides supervisors and employees with the following criteria to use in making these determinations.

Eligible positions have tasks that are portable. Examples include thinking and writing, policy development, research, report writing, telephone-intensive tasks,

and computer-oriented tasks. Positions that are generally not suitable for telework require the employee to have daily face-to-face contact with the supervisor, colleagues, or the general public, that require daily access to classified information, or are part of trainee or entry level positions.

Eligible employees must be dependable, responsible, highly motivated, able to effectively prioritize work, have good time management skills, and a proven or expected minimum performance rating of "fully successful" or equivalent.

If the supervisor and the employee agree that telework is an effective option for the employee's conduct of business, both the supervisor and employee must sign a telework agreement. Among other things, the agreement specifies the telework schedule, the alternative worksite location, as well as security and equipment issues.

The agreement also explains that telework may be terminated if the arrangement fails to meet organizational needs, or if the employee's performance does not meet the prescribed standards. Additionally, employees who work at home are also required to complete an "at home safety checklist." Sample agreements and safety checklists are contained in the DoD Telework Guide.

Although it is permissible for agencies to offset some costs of teleworking, such as installing an extra phone line for an employee who works at home, no additional Army or USACE funds are available for these needs. Funding of the telework program is the responsibility of local activities.

To learn more about telework, check the joint General Services Administration /Office of Personnel Management website at www.telework.gov/. The site includes links to the DoD Policy and Guide.

A Telecommuting Briefing Kit, designed by OPM is also available on-line at www.opm.gov/wrkfam. Questions should be addressed to your local Civilian Personnel Advisory Center.

HR Corner

Proposed legislation would improve workforce recruiting and retention

By Tony Whitehouse
Headquarters

The Directorate of Human Resources has been actively partnering with Department of Army to support legislative proposals that, if enacted into law, will provide managers additional authority and flexibility to better recruit new hires and retain the existing work force.

Department of Defense proposals with broad-based support include several that will enhance USACE's ability to hire well-qualified external applicants into positions that are deemed hard-to-fill or are in severe shortage categories. By exempting some positions from existing competitive examining requirements, USACE would be able to extend job offers more quickly.

Besides additional hiring authorities, DoD supports the conversion of some employees on term appointments to permanent positions. This would facilitate converting trained resources into permanent assets. Another proposal would increase the amount of money that could be authorized under the student loan repayment program.

Currently, USACE commanders have delegated authority to approve qualifying student loan repayments up to \$6,000 per year with a \$40,000 maximum payout. In addition to partnering with DoD and Department of Army on legislative initiatives, the human resources staff is working with the civil works program staff to bring visibility of our recruitment and retention needs to appropriate legislative committees for possible relief.

DoD has asked Congress to consider the creation of an "alternate personnel system" for DoD civilians. This proposal would compress current pay grades into broader pay bands and more directly tie an individual's total compensation to performance and contribution to the mission. USACE has successfully operated under a similar demonstration project in the Engineering Research and Develop Center (ERDC), and supports expansion of some features currently in use by ERDC to all of the USACE work force.

While new legislation is sought, greater and more creative use of existing flexibilities and authorities by USACE managers will be required. Districts are

effectively using the Federal Career Intern Program (FCIP) to extend job offers in a couple of days. While USACE authorized more than \$700,000 for 97 recruitment and relocation bonuses and retention allowances in 2001, an even greater use of these authorities is anticipated this year.

Later this year, applicants for positions anywhere in Department of Army will be able to submit their resume to only one location, regardless of the servicing personnel office or location of the position. The resume format and supplemental data an applicant provides will be simpler, and standardized. Vacancy announcements are being redesigned to be shorter, more user-friendly, and less complex.

Once the one-portal system is working, and application processes are standardized, Army will begin migrating to an inventory-based recruiting process. This will permit applicants to be considered for vacancies without submitting a resume and self-nomination in response to a particular vacancy announcement. Features are being incorporated into the inventory-based recruiting process that address man-

agers concerns about outdated inventories, and that address employees concerns about having control over when they are considered for a vacancy.

In response to concerns from USACE managers and job applicants, Seattle District and other USACE organizations serviced by the West Civilian Personnel Operations Center have piloted a major new initiative that standardizes RESUMIX selection criteria for a number of USACE-specific positions. By providing managers recommended skills criteria that have been tested by subject matter experts, and which routinely and consistently generate an acceptable best-qualified list, the efforts of Seattle District will generate significant benefits.

Results will include a more valid RESUMIX assessment process, greater applicant confidence in the results of the RESUMIX process and, hopefully, improved customer satisfaction in the number and quality of referred applicants. USACE human resources staff has been a strong advocate of this effort, and supports its expansion to all locations and occupational categories.

Around the Corps

Record contract

St. Paul District awarded Gowan Construction, Inc., of Oslo, Minn., the largest HUBZone contract in history last January. The record \$12.9 million base award will be used in the next couple of years for the English Coulee Diversion construction in Grand Forks, N.D., a flood-control project on the Red River of the North.

The area's crippling floods of 1997 pushed local officials and the Corps to find a solution. Instead of rerouting the Red River around the city, they resolved that creating channels, and lengthening existing channels in the English Coulee Diversion, would be more cost-effective. Around \$4 million of the award will be used for construction this year.

The HUBZone Program offers government contracts to small businesses that agree to locate in economically distressed areas and employ people from these areas. Contracts to small businesses in HUBZones can translate into thousands of job opportunities for persons who are unemployed or under-employed.

"It's the largest HUBZone contract nationwide," said Tom Koopmeiners, St. Paul District small business specialist. "We're proud to be a part of it. The Gowan Construction contract has been an exciting and rewarding process to take part in."

Gowan Construction started the English Coulee Diversion project in late January. They will build about 4.5 miles of new channel, and expand five miles of existing channel. Gowan Construction will also rebuild seven miles of gravel roadway and 4,000 feet of highway road rise.

Project completion is expected by Nov. 15, 2003.

"Gowan Construction has always been known for their dependability," said Fred Mitchell, contracting officer. "We're pleased with the contract and look forward to successful completion of the project."

Architect, interior designer, and landscape architect awards

The Corps selected its architect, interior designer, and landscape architect of the year on April 29. Winners are selected yearly from nominations submitted by district commanders. This year nominations were submitted for nine architects, two landscape architects, and two interior designers. Winners were selected for demonstrated excellence in design, mentoring fellow professionals, and for service to their professions and communities.

Brian Nohr of Omaha District is the Architect of the Year. Nohr most recently demonstrated design excellence in the Museum and Interpretive Center at Fort Peck, Mont., the Interpretive Center at Ponca State Park, Neb. He actively pursues improvements to design management processes and fosters partnership with federal, state, and local agencies.

Nohr is a registered architect in Nebraska and South Dakota. He participates in the Southwest Iowa Chapter of the American Institute of Architects, and is a member of the National Trust for Historic Preservation.

His leadership in career development and mentoring is focused on helping youth understand the many roles that offer career opportunities in the Corps. He is also active in his community working with youth.

Aleta Greenspan of Mobile District is the Interior Designer of the Year. She is a registered interior designer in Alabama and Florida, and certified by the National Council for Interior Design Qualification.

Greenspan's projects, located throughout the South-

eastern U.S., Central America, and South America are high quality, attractive, functional, enduring facilities. She has provided outstanding professional interior design services for the Army, Air Force, Navy, Defense Intelligence Agency, FBI, EPA, and other government clients.

She has been an instructor for the Space Utilization and Interior Design Courses, and a leader for regional conferences with government and private business participants. She has also been president of the Council of Federal Interior Designers, Director of Finance for the National Council for Interior Design Qualification, and has been elected to the College of Fellows of the International Interior Design Association.

Rhonda Brown of Galveston District is the Landscape Architect of the Year. Her projects include Cedar Hill Park, Sims Bayou, Clear Creek, and Greens Bayou. She excels at forming strong alliances with local sponsors, environmental resource agencies, and local citizens groups. She is an advocate for sustainable design technology, and the USACE Environmental Operating Principles.

To obtain citizen involvement and support, and to bring student participation to Galveston District projects, Brown designs and implements volunteer projects in appropriate district works. She is a registered landscape architect in Texas, and participates in the American Society of Landscape Architects.

Math advocate

Steven Skaggs, a cost engineer with Louisville District, has received the D.V. Terrell Award for significant contributions to the Kentucky Society of Professional Engineers.

The citation noted his work with MATHCOUNTS, an organization that increases involvement in math among middle school students. Skaggs was the Kentucky state chairman of the MATHCOUNTS math competition program. In 2002 more than 900 students participated, setting the second straight student participation record in Kentucky.

"Involvement in the MATHCOUNTS competition has given me a chance to give something back and help out the next generation," said Skaggs. "It's wonderful to see these bright students participate in a program that combines problem-solving, teamwork, presentation skills, and social interaction."

Texas A&M Alumni Award

Scott Jackson, a research biologist with the Engineer Research and Development Center (ERDC) in Vicksburg, Miss., recently received Texas A&M University's Lesley M. Reid Alumni Award. The award is presented to alumni of the university's Department of Recreation, Park, and Tourism Sciences for outstanding professional achievements in recreation management.

Jackson manages the ERDC Recreation Management Support Program, which conducts research and provides technical support to more than 2,000 Corps natural resource managers and park managers at more than 450 sites.

The Corps is one of the largest providers of outdoor

recreation. As project manager for the Corps' Recreation Leadership Advisory Team, Jackson coordinates recreation management studies, provides vision for strategic planning, and develops and recommends national priorities for the Corps' recreation program.

One national priority area that Jackson is involved in is planning focus groups to address recreational opportunities for minority groups at Corps recreation sites. Under Jackson's leadership, the Corps has targeted minority audiences through innovative message programs, joined the Central California Hispanic Chamber of Commerce, developed a life jacket loaner program in partnership with Wal-Mart, and integrated the preferences and needs of ethnic groups into Recreation Facility Design guidelines.



Aleta Greenspan, Interior Designer of the Year.



Rhonda Brown, Landscape Architect of the Year.



Maj. Thomas O'Hara, Deputy District Engineer of St. Paul District, plays the "Game of Life" with students in Sharon Hendrix's sixth grade class at Highwood Hills Elementary School in St. Paul, Minn. It is part of a community program that compares spending time with children to a flood-fighting effort. (Photo courtesy of St. Paul District)

"Sandbagging"

Maj. Thomas O'Hara, Deputy District Engineer of St. Paul District, thought it appropriate for a Corps member to be a "sandbag" for an hour or so. He spent some time one Friday playing games with students at Highwood Hills Elementary School in St. Paul, Minn., as part of a community program that compares spending time with children to a flood-fighting effort.

The program involves inviting adults from the St. Paul community to the classroom to interact with the students through playing games. Sharon Hendrix, sixth grade teacher, created this game time to teach her students social skills.

"The students benefit hugely from modeling the behaviors of adults," Hendrix said. "It also shows the kids that they're important, and that they have access to important people in the community."

In her written description of the program Hendrix said, "When disaster is about to strike, it takes more than one person...to hold the waters back. All the members of the community need to take action in a...sandbagging effort. Currently, there are waters rising around our kids, which require immediate sandbagging..."

O'Hara wore his Army battle dress uniform and passed out Corps stickers, and inkpens shaped like bolts. "Maj. O'Hara wore his fatigues, and he brought cool stuff, so he was cool," said Hendrix. "Some of the people who come don't know how to interact with kids, but he was good."

The program isn't formal. It involves sitting at a table with a group of students and playing a game of their choice. "We played the 'Game of Life,'" O'Hara said. "I lost."

While they played, he said the students asked O'Hara several questions about being in the Army. "I had a great time," he said. "It gave me an appreciation for these kids, and reinforced my feeling that it's important to go out and remain involved in the community."



Brian Nohr, Architect of the Year.

Communications Workshop

Five steps to an effective news media interview

By George Halford
Headquarters

Media interviews offer us the opportunity to tell our story, and our organization's story, to a much larger audience that we could normally reach. But when a reporter calls, how do you deal with him or her to insure your story gets told accurately and fairly?

We've put together a five-step process that we recommend you follow. You might not personally be involved in the first two steps (you can ask your Public Affairs Office for help) but this is the type of information you need before you can agree to deliver what the reporter wants.

- Get the details.
- Get the questions.
- Develop messages.
- Do the interview.
- Evaluate, improve, and inform command.

Get the details

First and foremost, you need to find out the name of the publication or news broadcast, the name of the reporter, when the story will be used, and the topic and angle the reporter is interested in. Find out who else the reporter is talking to about the story so you will have some idea of what the reporter has or will be told.



At this point, it is important to set the ground rules for the interview, such as will it be live or taped. Also establish what topics you are willing to talk about, where the interview will take place, and what kind of support, if any, the reporter will need.

Get the questions and angle

Most reporters can't give you an actual list of questions, but they can give you general areas they are interested in discussing. Most ethical reporters (and most of them are ethical) are not out to "get" you. They are after a good story, and the best way for them to get it is for you to be prepared.

Remember, an interview is a conversation between you and the reporter. He or she will listen and react to what you say, and their questions will evolve accordingly.

Develop messages

This is why you are doing the interview, to get your messages out. You need to pull together a team to help you determine the issues and develop talking points to use in answering the reporter's questions. Determine if

there is a special audience you are trying to reach, and frame your messages to reach them.

Also, ask yourself, "What are the 15 most important words I can say on the topic?" Make sure you "front-load" your answer with these statements. If you begin each answer with a nice, juicy quote, that is most likely to be pulled for use.

Also (and this is especially important for the Corps of Engineers) *eliminate jargon!* Don't talk Army, or engineer, or bureaucratese. Don't say "mitigate," or "PSI," or "acre-feet," or any of a million other technical terms we know. Talk as if you are telling your spouse, parent, or children how your day was. This should help you clear up your language.

Also, put your message in terms of people. Instead of talking statistics, like the number of sandbags we gave out, talk in terms of people, like the number of homes we saved.

Do the interview

If you told the reporter you would get back to him or her, make sure you do it, even if it is to say you can't do the interview.

Don't just concentrate on what you plan to say. Work on how you look as well. Dress professionally and make sure your hair is neat. Also, make sure you use all of those communications tricks OPM teaches in their communications courses — open posture, sit straight, and look interested in what the reporter and others are saying.

Be ready with your messages and key phrases. Start with the point you want to make and follow with the explanation.

And, by all means, actually listen to the question the reporter is asking and answer *that* question.

After-action

Once you've escaped the reporter, and the interview is over, you need to follow-up. If you promised the reporter additional material, *make sure* you provide it within the agreed time.

Make sure you inform the right people you did the interview. The last thing you need is for your boss to find out you talked to a reporter by reading about it in the paper.

Look at how you did and see where you could improve your techniques and messages. Also, based on the story, see if you need to develop any new messages. Look at your performance critically and ask yourself "Will Mom be proud?"

Finally, accept a balanced story. It is important to remember, because not everyone likes us or agrees with what we are doing. There opinions, no matter how wrong or misinformed, are still valid, and a good reporter will find them and report on them.

Bottom line, if you follow these simple steps, and work with your Public Affairs Office, you can not only survive, but thrive in a media interview.

Excuse me, there's someone at the door. Oh, it's just Mike Wallace, and he wants to talk to you.

Candid talk with 'Post' reporter

Article by Bernard Tate
Headquarters
Photo By F.T. Eyre
HECSA

(On April 19, the Public Affairs Office at Headquarters had a long lunch with Mike Grunwald. In September 2000, Grunwald, a reporter for the "Washington Post," wrote a series of articles about the U.S. Army Corps of Engineers that raised a lot of hackles. He has written several other Corps articles since then, and is now researching a series of articles about Everglades restoration.

Grunwald's motives and methods have been widely questioned in the Corps. Our lunch with Grunwald was friendly, but we asked tough questions, and his answers were candid. This is an edited version of that discussion.)

What mistakes did we make in dealing with you?

There are two major mistakes that the Corps made, one that Gen. Flowers has done a fantastic job of fixing.

The first type of mistake was acting like you have something to hide. When I did that series in September 2000, the Corps did not cooperate at all, which is completely counterproductive. In the long run, if you have a story to tell, it's always better to tell it.

I bent over backwards in 2000 to get the Corps' side of the story. In the end, I was able to report the Corps' party line, even without speaking to Corps officials on the record. But I would have understood the Corps better if there had been more cooperation. It would have been, in my opinion, a better series.

Now I'm working on Everglades restoration (which is not about the Corps, but has Corps stuff in it), and from Lt. Gen. Flowers down, there has been full cooperation. They've brought me in, and showed me what they're doing, and any questions I've asked they've tried to answer.

That doesn't mean that everyone in the Corps will like everything I write about the Everglades, but I can tell you that the alternative would be far worse. In the end, the participation by the Corps will make for a better and fuller series, and just maybe a better project.

With that said, I'd be remiss if I didn't mention that there are two aspects of getting a good story into the paper. Part one is public relations. With Gen. Flowers, I think you guys really do a good job of public relations, selling your product.

But I don't mind saying for the record that part of the problem is the product itself. There are some awful Corps projects and, while it might make you look better to defend them than to say "No comment," that won't make them less awful.

Maybe I didn't emphasize that enough last July when I talked to the Senior Leaders Conference. I got the sense that people thought their only problem was not telling their side of the story.

The problems with the Corps, the problems that I've raised and that were raised by the Pentagon and EPA and GAO and other institutions, are serious concerns that must be addressed. Even this new regime, which has been incredibly open about telling its story, has at times been telling a ridiculous story.

So the Corps' two mistakes, one was acting like we had something to hide, and the second one...

The second one was trying to pass off mud as chocolate pudding.

What did the Corps do right?

In general, I've had very few bad experiences dealing

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